CLAIMS

What is claimed is:

5   1. A method for supporting versioning of data, said method comprising the steps
of:

associating version numbers, each having a different value, with a data item;

10   storing a most recent version of said data item in a first table;

storing a version of said data item other than said most recent version in a second
table; and

15   determining the version of a stored data item based on said version number and a
storage location of said stored data item.

2. The method of claim 1, further comprising the step of associating said version
number with a version of said stored data item.

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3. The method of claim 2, wherein said stored data item is associated with a
(version number – 1) value.

4. The method of claim 3, wherein the version of said stored data item is
25 determined based on said (version number – 1) value.

5.   The method of claim 3, further comprising the step of generating a value for
said (version number -1) value by incrementing said (version number – 1) value from
zero (0) to n.

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6. The method of claim 1, further comprising the step of generating a value for said version number by incrementing said version number from zero (0) to m.

7. The method of claim 6, wherein m has a predetermined maximum value.

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8. The method of claim 1, wherein said version number having a value of zero (0) is associated with said most recent version of said stored data item or an oldest version of said stored data item, depending on a context of use for said version number.

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9. The method of claim 1, further comprising the step of performing an operation on said first and said second table.

10. The method of claim 9, wherein said operation including said version number having a value of zero (0) is interpreted as a request for said most recent version of said

15 stored data item, and said operation is selected from a group consisting of a query operation, a retrieve operation, and an update operation.

11. The method of claim 9, wherein said operation including said version number having a value of zero (0) is interpreted as a request for an oldest version of said stored

20 data item, and said operation is a delete operation.

12. The method of claim 1, further comprising a step of performing a query for said stored version for said data item.

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13. The method of claim 1, wherein a first instance of a version of said data item is stored in said first table.

14. The method of claim 1, further comprising the step of performing a query on said first table and said second table wherein a column attribute of a column selected by

30 said query is retained in a result of said query.

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15. The method of claim 14, wherein said query invokes a union operation.

16. The method of claim 14, wherein said column attribute is obtained from a sequential query language description area (SQDLA) of said query result.

17. A system for supporting versioning of data, said system comprising:

a memory;

means for associating version numbers, each having a different value, with a data item;

means for storing a most recent version of said data item in said memory and a second table for storing a version of said data item other than said most recent version in said memory; and

means for determining the version of a stored data item based on said version number and a storage location of said stored data item.

18. The system of claim 17, comprising means for associating said version number with said stored data item.

19. The system of claim 18, wherein said stored data item is associated with a (version number – 1) value.

20. The system of claim 19, wherein the version of said stored data item is determined based on said (version number – 1) value.

21. The system of claim 19, comprising means for generating said (version number -1) value by incrementing said (version number – 1) value from zero (0) to n.

22. The system of claim 17, comprising means for generating said version number by incrementing said version number from zero (0) to m.

23. The system of claim 22, wherein m has a predetermined maximum value.

24. The system of claim 17, wherein said version number having a value of zero (0) is associated with said most recent version of said stored data item or an oldest version of said stored data item, depending on a context of use for said version number.

25. The system of claim 17, wherein an operation including said version number having a value of zero (0) input to said system is interpreted as a request for said most recent version of said stored data item, and said operation is selected from a group consisting of a query operation, a retrieve operation, and an update operation.

26. The system of claim 17, wherein an operation including said version number having a value of zero (0) input to said system is interpreted as a request for an oldest version of said stored data item, and said operation is a delete operation.

27. The system of claim 17, wherein a first instance of a version of said database data item is stored in said first table.

28. The system of claim 17, wherein a column attribute of a column selected by a query performed on said first table and said second table is retained in a result of said query.

29. The system of claim 28, wherein said query invokes a union operation.

30. The system of claim 28, wherein said column attribute is obtained from a sequential query language description area (SQDLA) of said query result.

31. A storage medium having computer readable program instructions embodied therein for supporting versioning of data, said storage medium comprising:

program instructions for associating version numbers, each having a different value, with a data item;

program instructions for storing a most recent version of said data item in a first table;

program instructions for storing a version of said data item other than said most recent version in a second table; and

program instructions for determining the version of a stored data item based on said version number and storage location of said stored data item.

32. The storage medium of claim 31, further comprising program instructions for associating said version number with a version of said stored data item.

33. The storage medium of claim 32, comprising program instructions for associating said stored data item with a (version number – 1) value.

34. The storage medium of claim 33, wherein the version of said stored data item is determined based on said (version number – 1) value.

35. The storage medium of claim 33, comprising program instructions for generating a value for said (version number -1) value by incrementing said (version number – 1) value from zero (0) to n.

36. The storage medium of claim 31, comprising program instructions for generating a value for said version number by incrementing said version number from zero (0) to m.

37. The storage medium of claim 36, wherein m has a predetermined maximum value.

38. The storage medium of claim 31, comprising program instructions for interpreting said version number, having a value of zero (0), with said most recent version of said stored data item or an oldest version of said stored data item, depending on a context of use for said version number.

39. The storage medium of claim 31, comprising program instructions for interpreting an operation including said version number, having a value of zero (0), as a request for said most recent version of said stored data item, wherein said operation is selected from a group consisting of a query operation, a retrieve operation, and an update operation.

40. The storage medium of claim 31, comprising program instructions for interpreting an operation including said version number having a value of zero (0) as a request for an oldest version of said stored data item, and said operation is a delete operation.

41. The storage medium of claim 31, comprising program instructions for retaining a column attribute of a column selected by a query performed on said first table and said second table.

42. The storage medium of claim 41, wherein said query invokes a union operation.

43. The method of claim 41, wherein said column attribute is obtained from a sequential query language description area (SQDLA) of said query result.